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ABSTRACT

A method of depositing a platinum based metal film by CVD deposition includes bubbling a non-reactive gas through an organic platinum based metal precursor to facilitate transport of precursor vapor to the chamber. The platinum based film is deposited onto a non-silicon bearing substrate in a CVD deposition chamber in the presence of ultraviolet light at a predetermined temperature and under a predetermined pressure. The film is then annealed in an oxygen atmosphere at a sufficiently low temperature to avoid oxidation of substrate. The resulting film is free of silicide and consistently smooth and has good step coverage.

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